UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,765	01/25/2001	Meir Feder	150824.05	7763

22971   7590   07/17/2007

MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052-6399

EXAMINER
SHELEHEDA, JAMES R

ART UNIT	PAPER NUMBER
2623	

NOTIFICATION DATE	DELIVERY MODE
07/17/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

roks@microsoft.com
ntovar@microsoft.com
a-rydore@microsoft.com

	Application No.	Applicant(s)
Office Action Summary	09/770,765	FEDER ET AL.
	Examiner	Art Unit	
	James Sheleheda	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-35,37-39,43-45 and 47-61* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-35,37-39,43-45 and 47-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 04/11/07 have been fully considered but they are not

persuasive.

Applicant argues, (Applicant's remark page 9), "…However, as clearly disclosed

by Day, these various operating characteristics relate to the various formats of the video

and have nothing to do with the *computer generated graphical content of the video data*.

See col. 5, lines 60-64. Accordingly, the only processing taught by Day relates to

ensuring a seamless data stream in which all the data sources are converted to a same

operating characteristic (or same format). This disclosure is clearly very different from

the claimed identifying of compression parameters and degrading of image quality is

based on (1) a function of the type of data wherein the types of data *are determined*

from the computer generated graphical content of data received from the respective

plurality of data sources."

In response, the Examiner respectfully disagrees with Applicant because

Applicant amended claims 30 and 61 do not clearly define limitations "types of data" and

"computer generated graphical content of data". As such, "types of data" broadly reads

on encoding type of data (i.e., the level of encoding resolution, encoding rate., etc…),

and "computer generated graphical content of data" reads on the computer generated

HTML files utilized to select the video programs and their program attributes (see

column 4, lines 8-55). Note: "computer generated graphical content of data" is NOT the

computer generated graphical *content of the video data*, as alleged by Applicant. Thus,

the computer generated graphical content of Day, i.e. HTML files, are "of data received

from the respective plurality of data sources", as they are clearly associated with the

received video files.

As previously discussed (see previous Office Action), Day discloses that

encoding is selected based on a function of the type of data, i.e., encoding rate of the

video vs the transfer rate of the communication link, the play rate vs the display scan

rate **and** encoding resolution according to the resolution of the display device. Day

further discloses degrading image quality based on a function of any particular

(encoding) type of multimedia file because, at least, based on the resolution of the

display device, Day encodes the selected video file according to the resolution of the

display, for example if the selected video file is encoded with high-resolution (encoding

type, i.e., high image quality) then Day system re-encodes selected high-resolution

encoded video file to the same resolution of the Display device, i.e., low-resolution

display device, thereby degrading the image quality of the high-resolution encoded

video file according to the encoding resolution level that corresponds to the supported

resolution of the display device.

In view of that, the Examiner asserts that Day clearly discloses identifying of

compression parameters and degrading of image quality is based on (1) a function of

the types of data (encoding type, such as encoding resolution level, encoding rate of the

video), wherein the types of data are determined from the computer generated graphical

content of data received from the respective plurality of data sources (see Col. 4, lines

9-55 and Col. 5, lines 65-Col. 6, lines 25).

Therefore, applicant's arguments are not persuasive.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 30-35, 37-39, 43-45, 47-56, and 61 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Adams (US 6044396) (of record) in view of Day et al.

(US5996015) (of record).

Regarding Claim 30, Adams shows a system that receives data from the

plurality of sources and a method of bandwidth allocation for transmitting video on a

cable network comprising identifying compression parameters to be used to

compress the data that is received from the sources to a desired depth of

compression (col. 5 lines 10-50, encoding rate determined by the bandwidth

availability), associating the compression parameters with a set of values and

threshold ranges (col. 5 lines 15-50, col. 6 lines 15-50, using parameters of B buffer

fullness, T buffer threshold, and Cm maximum rate to determine proper encoding

rate), receiving data from a plurality of data sources a plurality of data sources (col. 2

lines 27-4 1, col. 4 lines 35-50), differentially converting the data sources into

compressed video streams responsive to an instantaneous resource restriction (col. 5 lines 10-50, col. 7 lines 30-45), and multiplexing the compressed video streams on a single transmission line (col. 4 lines 35-50, see fig. 1 item 1 10, fig. 2).

Adams fails to show differentially converting the data to a desired depth of compression and for degrading image based on a function of the types of data to be displayed and a function of client capabilities, wherein the types of data are determined from computer generated graphic content of data received from the respective plurality of data sources.

Day discloses differentially converting the data to a desired depth of compression and for degrading image based on a function of the types of data to be displayed and a function of client capabilities, wherein the types of data (encoding type of data, i.e., the level of resolution of data to be encoded) are determined from computer generated graphic content of data (see Col. 4, lines 9-55 and Col. 5, lines 65-Col. 6, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Adams to encode/compress data according to client device capability, as taught by Day, so to ensure that all of the multimedia segments have common operating characteristics thereby accommodating with the bit rate/transfer rate of the communication link and the "play rate" and resolution of the display device and moreover avoiding any possibly data loss and any undesirable effects during the video or audio or other multimedia presentation.

Regarding Claim 31, Adams in view of Day further shows converting each

stream into a different frame rate (Day; Col. 4, lines 10-17).

Regarding Claim 32, Adams shows that the frame quality maybe increased

depending on bandwidth availability (col. 2 lines 12-17).

Regarding Claims 33 and 48, Adams shows that the resource restriction

comprises bandwidth restrictions (col. 5 lines 10-50, lines 64-67).

Regarding Claims 34 and 49, Adams in view of Day (Col. 6, lines 9-25) further

shows that the resource restriction comprises a computing restriction.

Regarding Claim 35, Adams shows that the data sources comprise display

commands generated by a computer program, or instructions on how the data will

be displayed (col. 1 lines 50-59, col. 2 lines 42-44; Col.. 4 lines 58-59). This

'application data' or 'auxiliary packets' are data that describe how the 'frame' of

MPEG data is displayed. The data describing what frames are to be displayed or

what bit rate to use are the display commands. The information tells the receiver

how to create, or display, the image at the user site.

Regarding Claim 37, "providing an indication of the content with the data sources" reads VOD list with explicit link to each video stored (Day; Col. 4, lines 30-65+).

Regarding Claim 38, Adams shows that it is possible to analyze, based on the display commands, such as bit rate and application data to determine the content of the data, such as a slow moving scene, wherein said display commands are generated by a computer program (col. 2 lines 12-17).

Regarding Claim 39, Adams shows that applications data, generated by software, indicates information about the content of the data (col. 1 lines 50-59, col. 2 lines 42-44; Col. 4 lines 58-59).

Regarding Claim 43, Adams in view of Day further shows wherein the instantaneous resource restriction comprises an instantaneous computing resource restriction (Day; Col. 5, lines 63-Col. 6, lines 25).

Regarding claim 44, Adams in view of Day (Col. 4, lines 10-17; Col. 5, lines 65-Col. 6, lines 25) further shows wherein the differentially converting comprises converting each data source to a different frame rate compressed video stream.

Regarding Claims 45 and 47, Adams (col. 2 lines 12-17) in view of Day shows that the frame quality may be increased/decrease depending on bandwidth availability.

Regarding Claim 50, Adams shows using asynchronous compression and MPEG-2 encoding (col. 5 lines 10-27, synchronous transfer mode and variable bit rate as a result of MPEG-2). Furthermore, MPEG-2 type encoding inherently only sends data when a change has occurred in the image, as expressed in a P or B frame.

Regarding Claim 51, Adams (col. 5 lines 45-67, col. 6 lines 1-50, controlling the fullness of the encoding buffer B based on bandwidth availability) in view of Day (Col. 6, lines 20-31) further shows using a variety of data buffers, which queue and delay generation of compressed data to accommodate the instantaneous resource restriction.

Regarding claim 52, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines 30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein a same compression depth is achieved for each client receiving compressed video streams from the system.

Regarding claim 53, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines 30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the content includes a hint corresponding to how the content should be compressed and multiplexed based upon a minimum bandwidth requirement needed by the client.

Regarding claim 54, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines 30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the hint comprises a hint regarding a maximum quality reduction that can be applied to the content.

Regarding claim 55, Adams in view of Day (Col. 4, lines 10-18; Col. 5, lines 30-52; Col. 5, lines 65-Col. 6, lines 2) further discloses wherein the types of data to be displayed include parts of a display.

Regarding Claim 56, although icons and menus can be sent in the systems of Adams in view of Day, Adams in view of Day does not specifically disclose wherein the parts of the display include at least one of the icon and a menu bar.

Official Notice is taken that icons and/or menu bar to be part of the display is notoriously well known in the art. Therefore, it would have been obvious to modify the system of Adams in view of Day to have icons/menu bar to be part of the display so to provide to user a friendly GUI for navigating among items on the display.

Claim 61 is analyzed with respect to system claim 30.

4.   Claim 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Adams
(US 6044396) in view of Day et al. (US5996015), and further in view of Lavallee
(6,215,904).

Regarding Claim 57, Adams shows compressing and sending computer
application and control data in addition to video data (col. 4 lines 50-65,Application
data). Although text can be sent in the systems of Adams in view of Day, they fail to
specifically state creating more compression for text data.

Lavallee shows creating different compression for various data, depending if it
is image or text data (col. 3 lines 10-67, selecting an encoding scheme based on the
content of an image, such as text or pictures). It would have been obvious to modify
the system of Adams in view of Day with the ability to compress text to a greater
extent, as taught by Lavallee so that the most efficient data was sent to the user.

5.   Claims 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Adams (US 6044396) in view of Day et al. (US5996015), and further in view of
Mussman et al. (US 6243388).

Regarding claims 59-60, Adams in view of Day, all describe digital data
packet streaming systems that require some type of client computer address in order
to send appropriate data (such as an IP address/'digital subscriber number'), but
they fail to specifically state using an 'customer identifier'.

Mussman clearly shows using a customer identifier to locate clients in a

broadband system (col. 11, lines 1-10, col. 12 lines 15-37, customer units identified

by subscriber number).   It would have been obvious to one of ordinary skill in the art

at the time the invention was made, and is well known in the art, to modify Adams in

view of Day with a client/device subscriber number so as to uniquely identify and

communicate with a specific client/device.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   The following are suggested formats for either a Certificate of Mailing or
Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with
all correspondence concerning this application or proceeding to establish a date of
mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in
such communication being considered as timely if the established date is within the
required period for reply. The Certificate should be signed by the individual actually
depositing or transmitting the correspondence or by an individual who, upon information

and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on _____.
   (Date)

Typed or printed name of person signing this certificate:

_____

Signature: _____

Registration Number: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. ( )_____ - _____ on _____.
   (Date)

Typed or printed name of person signing this certificate:

_____

Signature: _____

Registration Number: _____

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sheleheda
Patent Examiner
Art Unit 2623

JS

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600